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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,485	11/20/2003	Yasuyuki Momoi	520.43276X00	6677
20457 7590 10/19/2010 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873				
EXAMINER NGUYEN, VI X				
ART UNIT 3731		PAPER NUMBER		
MAIL DATE 10/19/2010		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/716,485

**Applicant(s)**

MOMOI ET AL.

**Examiner**

VICTOR X. NGUYEN

**Art Unit**

3731

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 14-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This Office Action is in response to the Amendments filed on 8/16/2010.

Claims 1, 5 have been amended. Claims 14-24 are newly added claims.

Claims 1, 3-5 and 14-24 are pending in this present application.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 14, 19, 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended dependent claims 14, 19, 24 now recite, "wherein said surgical tool including plural line indicia serving as reference lines for parallelly-aligning scanning lines of said laser beams impinging onto said surgical tool, as a guide to effect said setting direction of said surgical tool". It is unclear where this limitation is supported in the original disclosure. Therefore, it appears that the amended claims are not properly supported by the original disclosure.

***Double Patenting***

3. Applicant is advised that should claims 1, 3-5, 14 be found allowable, claims 15-24 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in

an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 15-23 are rejected under 35 U.S.C. 102 (b) as being anticipated by Sanjay-Gopal et al US 6,187,018.

Claims 1, 15, 20: Sanjay-Gopal et al disclose a position measuring apparatus for surgery comprising: a position indicating means 90 for indicating or guiding a setting position and a setting direction or orientation of a surgical tool 28, said position indicating means comprising a pair of laser beam emitting means 90a, 90b, figure 2c for emitting respective laser beams that intersect in a surgical field; a three-dimensional position measuring means 24 for measuring a position and a direction of said surgical field and also the setting position and the setting direction of said surgical tool; a control unit 30 for controlling operation of said position indicating means and said three-dimensional position measuring means, wherein said position indicating means and said three-dimensional position measuring means being fixed on a common base (or is fixed on an elongated head 22c), so that relative positional relationship

there-between is constant; and wherein said setting direction for said surgical tool is given in a form of an intersection line (see col. 5, lines 65-67).

Claims 3-4, 16-17, 21-22: Sanjay-Gopal et al disclose the position measuring apparatus 90 is held on a stand 22, which is changeable in its position and direction by being movable while keeping the relative positional relationship between the position indicating means and the three-dimensional position measuring means 24, and wherein said position measuring apparatus is held by an arm (fig. 2a), the arm extending from a ceiling and being changeable in a position and a direction by being movable while keeping the relative positional relationship between the position indicating means and the three-dimensional position measuring means 24.

Claims 5, 18, 23: Sanjay-Gopal et al disclose the position measuring apparatus 24 is used for indicating a position and a direction of a surgical tool during a surgical operation.

Claims 1, 5, 14-15, 18-20, 23-24 are rejected under 35 U.S.C. 102 (b) as being anticipated by Cosman US 6,405,072.

Claims 1, 15, 20: Cosman discloses a position measuring apparatus for surgery comprising: a position indicating means 17, 18 for indicating a setting position and a setting direction of a surgical tool (the surgical tool is broadly consisting with LINAC machine (L), optical camera -C and a computer (37), said position indicating means comprising a pair of laser beam emitting means (LED emitters 20, 21, see col. 4, lines 39-42) for emitting respective laser beams that intersect in a plane-like manner towards a surgical field; a three-dimensional position measuring means (the area of element C1, col. 4, line 43) for measuring a position and a

direction of said surgical field and also the position and the direction of said surgical tool; a control unit 34 for controlling operation of said position indicating means and said three-dimensional position measuring means, wherein said position indicating means and said three-dimensional position measuring means being fixed on a frame 6, fig. 1 or being fixed on a common base so that relative positional relationship there-between is constant; and wherein said direction for said surgical tool is given in a form of an intersection line (see col.19, lines 9-19).

Claims 5, 18, 23: Cosman discloses the position measuring apparatus 17, 18 is used for indicating a position and a direction of a surgical tool during a surgical operation.

Claims 14, 19, 24: Cosman discloses said surgical tool including plural line indicia serving as reference lines for parallelly-aligning scanning lines of said laser beams impinging onto said surgical tool, as a guide to effect said setting direction of said surgical tool (see col. 21, lines 14-28).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 19, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanjay-Gopal in view of Kallioniemi et al US 2004/0085443.

Sanjay-Gopal discloses the invention substantially as claimed. Sanjay-Gopal is silent regarding the tool includes plural line indicia serving as reference lines for parallelly-aligning

scanning lines of said laser beams impinging onto said surgical tool, as a guide to effect said setting direction of said surgical tool. However, Kallioniemi et al teach the tool includes plural line indicia serving as reference lines for parallelly-aligning scanning lines of said laser beams impinging onto said surgical tool, as a guide to effect said setting direction of said surgical tool (see paragraphs 345, 346, 360, 385). Therefore, it would have been obvious to one skilled in the art at the time the invention to provide the tool includes plural line indicia serving as reference lines for parallelly-aligning scanning lines of said laser beams impinging onto said surgical tool, as a guide to effect said setting direction of the tool as taught by Kallioniemi in order to provide the user where the position and the direction of the target is.

#### ***Response to Arguments***

6. Applicant's arguments filed 8/16/2010 have been fully considered but they are not persuasive. In response to applicant's argument that Sanjay-Gopal does not teach a setting direction of a tool is given in a form of an intersection line. The examiner disagrees. It is noted that Sanjay-Gopal does teach a setting direction of a tool is given in a form of an intersection line as best seen in fig. 2a, see col. 5, lines 65-67. Further, the applicant argues that Sanjay-Gopal fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., 2-axial position control or 2-axial orientation guiding) are not recited in the rejected claim(s) 1, 15, 20. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The applicant further argues that Cosman does not teach with direction or orientation of tool. The examiner disagrees. It is noted that a position indicating means 17, 18 for indicating a setting position and a setting direction of a surgical tool

(the surgical tool is broadly consisting with LINAC machine (L), optical camera -C and a computer (37), said position indicating means comprising a pair of laser beam emitting means (LED emitters 20, 21, see col. 4, lines 39-42) for emitting respective laser beams that intersect in a plane-like manner towards a surgical field; a three-dimensional position measuring means (the area of element C1, col. 4, line 43) for measuring a position and a direction of said surgical field and also the position and the direction of said surgical tool.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **VICTOR X. NGUYEN** whose telephone number is (571)272-4699. The examiner can normally be reached on M-F (8-4.30 P.M).



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor X Nguyen/  
Examiner, Art Unit 3731

/Anh Tuan T. Nguyen/  
Supervisory Patent Examiner, Art Unit 3731  
10/18/2010